

REMARKS/ARGUMENTS

Claims 1-38 are currently pending. Applicants acknowledge the allowance of the subject matter of claims 36 and 37. Applicants respectfully request reconsideration of the rejection of claim 1-35 and 38.

Claims 1-4, 6, 11-14, 16, 21-24, 26, 31, and 33-35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,013,343 (Shigezumi).

Shigezumi does not show or suggest formatting an IP packet to include a globally significant IP address identifying a realm and a locally significant IP address identifying a destination of the packet within the realm, selecting one of the globally significant IP address and the locally significant IP address for use in forwarding the packet based on a location within the network, transmitting the packet using the selected address from the packet, or wherein the globally significant and locally significant addresses are both configured for use in forwarding the packet without address translation, as generally set forth in claims 1, 11, 21, and 31.

Shigezumi is directed to DNS server filter checking for abnormal DNS packets. In rejecting the claims the Examiner refers to col. 1, lines 33-55 in the Background of the Invention of Shigezumi. This section of the patent describes a conventional domain name system (DNS) which is used by a host attempting to communicate with a destination host. In one example, a host connected to the Internet and attempting to connect to a WWW server using the TCP/IP protocol inquires of the DNS server an IP address corresponding to the name www.nec.co.jp. The host inquires first of the DNS server managing information at the top of a domain hierarchical structure in a DNS so as to be informed of a DNS server managing the next level of the hierarchy. The description refers to one IP address – www.nec.co.jp. Different levels of DNS servers are contacted which manage different domain levels (e.g., jp domain, co.jp domain). There is no teaching of formatting an IP packet to include a header comprising two addresses; a globally significant IP address identifying a realm and a locally significant IP address identifying a destination within the realm. Furthermore, since there are not two different

IP addresses, there is no selection of an address based on a location within the network or transmission of the packet using a selected address.

Network address translation is typically used at a gateway node between a realm that employs a private unregistered address and an external realm that uses the globally unique registered address. Since Shigezumi addresses only DNS server filtering checks, there is no discussion of address translation. However, conventional hosts, such as disclosed in Shigezumi, require address translation to contact a client or server in a private address realm. There is nothing disclosed in Shigezumi that would eliminate the need for address translation.

Applicants' invention, as set forth in the claims, is particularly advantageous in that it provides for interoperation between realms employing private local addresses and realms employing globally unique addresses while allowing nodes outside the private realm to initiate sessions with nodes inside the private realms without the need for mapping IP addresses between unregistered locally significant addresses and globally significant registered addresses.

Accordingly, claims 1, 11, 21, and 31 and the claims depending therefrom are submitted as not patentable over Shigezumi.

Claims 7-9, 17-19, 27-29, and 32 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,418,476 (Luciani).

Claim 7 is directed to a method for operating a gateway node to handle a received packet and includes extracting a globally significant destination address from a destination address field of the packet. If the globally significant destination address identifies a realm directly attached to the gateway node, a locally significant destination address is extracted from the packet and placed in the destination address field and the packet is forwarded to a local destination within the realm. The locally significant destination address and locally significant destination address are both contained within the packet so that the packet is forwarded to the local destination address without obtaining an address through network address translation.

Luciani discloses a method for synchronizing network address translator (NAT) tables using OSPF (Open Shortest Path First) opaque LSA (Link State Advertisement). Luciani uses conventional NAT to provide network address translator functionality at border routers (see, e.g., col. 2, line 61 - col. 3, line 18). Mappings are provided between interior private addresses and public globally significant addresses. In contrast to applicants' invention, Luciani uses a network address translation table at the border router to identify the local IP address that is mapped to a globally unique IP address.

In Response to Arguments, the Examiner refers to Fig. 1, col. 3, lines 14-18 of Luciani. This section of the patent describes specifically how the system uses network address translation to obtain either a local IP address or a globally unique IP address as a destination address. As described at col. 3, lines 13-18:

“[R]outer 150 receives the IP datagram and using its NAT software and associated data structures, translates the globally unique destination IP address with the local IP address assigned to host 121 in routing domain B before forwarding the datagram to host 121.”

The Examiner states that “reading IP address is equivalent to extracting a globally significant destination address from the IP header field in order to translate it into the local IP address assigned for the second host.” However, in addition to extracting a globally significant destination address from the packet, claims 7, 17, 27, and 32 require that a locally significant destination address can also be extracted from the packet and that both of these addresses are contained within the packet so that the packet can be forwarded to a local destination *without using network address translation*.

Accordingly, claims 7, 17, 27, and 32, and the claims depending therefrom, are submitted as not anticipated by Luciani.

Applicants respectfully submit that the other references cited, including U.S. Patent Publication No. 2002/0169887 (McLampy et al.), do not remedy the deficiencies of the primary references.

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For the foregoing reasons, Applicants believe that all of the pending claims are in condition for allowance and should be passed to issue. If the Examiner feels that a telephone conference would in any way expedite the prosecution of the application, please do not hesitate to call the undersigned at (408) 399-5608.

Respectfully submitted,



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